

Physics Department Management Review

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Physics Department Management Review

This presentation is part of the periodic senior management review of ESSH performance related to the EMS and OHSAS management systems in the Physics Department.

The purpose is to assess management system effectiveness and identify opportunities for improvement.

Agenda

- Scope and overview of the management systems
- Hazard and environmental aspects identification
- Review of related assessments
- Financial investments and stakeholder concerns
- FY10 performance versus goals
- Proposed FY11 goals
- Management feedback

EMS and OHSAS Scope

- NPP Work (Office & Experiments) in Buildings 510, 515, 901A
- ATF Operations & Experiments in Building 820
- CMPMSD in Building 510
 - CMPMSD is part of BES, but uses 510
 - Review of experiments in 510 CMPMSD responsibility
 - PO maintains reference to ESRs in EMS
 - Use 510 90-Day Area – keep “trail” of process → waste

Operating Mechanisms

- Hazards, Environmental Aspects & Controls identified & reviewed via ESRs & work planning
- ECR reviews all ESRs for Environmental component
- IH Rep reviews all ESRs for concerns/monitoring
- All ESRs have Pollution Prevention plans
- ESRs provide Risk Assessment for each hazard
- Information distribution
 - Web pages
 - <http://www.phy.bnl.gov/~safety/EMS>; ...OHSAS; ...ESRs
 - New employee handout
 - First topic at weekly Physics Department management meeting
 - All-hands meetings
 - ESSH Committee Meetings
 - Group Safety Coordinator (GSC – Worker Committee) meetings
 - Group leader meetings

Hazards & Environmental Aspects

Hazards:

- Hazardous or Toxic Materials
- Electrical Energy
- Flammable Gases and Liquids
- Flammable or Combustible Materials
- Cryogenic materials/devices
- Oxygen deficiency potential
- Ionizing Radiation
- Non-Ionizing Radiation
- Radioactive Materials
- Operating Vehicles
- Housekeeping Hazards
- Working Environment Hazards
- Nanomaterials (CMP)

SEAs:

- Regulated Industrial Waste Generation
- Hazardous Waste Generation
- Radioactive Waste Generation (sealed sources)
- Storage/Use of Chemicals & Radioactive Materials
- Liquid Discharges

External Assessments

- BHSO ISM Effectiveness & ESR Audit – 12/09 *No findings*
- IH Multi-Topic Assessment – 2/10 *No findings*
 - Lasers
 - Static Magnetic Fields
 - Non-ionizing Radiation
- EPA RCRA Inspection – 2/10 *No findings*
- BHSO Electrical Safety Assessment – 4/10
 - Corrected Electrical Work Permits
 - Incomplete Training Requirements – LOTO needed for >200 V
 - Knockouts missing on circuit breaker boxes missing
 - No MOU for Tier 1 inspections in that area
- NYS DEC Hazardous Waste Audit – 4/10 *No findings*

External Assessments

- EMS-OSH Surveillance Audit – 5/10 *No findings*
 - No nonconformances lab-wide
 - Science Divisions: Implementation of the ESR review process at the project or specific experiment level is commendable.
 - Science Divisions: Pilot Electronic ESR is a positive example of employee involvement in the development of tools.
- DOE Assessment of the BNL Fire Safety Program – 5/10
 - Materials in corridors impede egress
- BHSO Surveillance Software Safety – 9/10 *No findings*

BNL Internal Assessments

- Nessus Daily scans for cyber security high vulnerability
- Nessus Full Scans – Quarterly
- Building Hazard Assessment – 11/09
- Flammable Cabinet Inventory – 11/09
- Work Planning & Control Assessment – 11/09
- Lead Storage and Use Inventory – 2/10
- He-3 Inventory – 5/10
- Beryllium Use Assessment – 8/10

Physics Assessments

- Tier 1 Inspections
- Management Work Observations
- Quarterly Reviews of ATF Area Dose Rates
- Required Annual Reviews
 - Individual Dose Rate including cross-departmental workers
 - Annual Policy & Procedure Reviews
 - Annual Hazard Placard Reviews
 - Annual LO/TO Review
- Various Ergonomic Evaluations
- Chemical Inventory Reconciliation – 3/10
- JRA Review – 3/10
- Radioactive Source Review for reduction in unneeded sources – 9/10
- Physics Department FY10 Self Evaluation – 12/10

Physics Incidents

- Building Ventilation Impact on ODH – 10/09
- Radioactive Sources Not in Master Site Inventory – 2/10
- Chipped Tooth Injury (SCBNL) – 5/10
- Stolen Laptop (SCBNL) – 6/10
- Compressed Air System Failure – 6/10
- Smoke Emanating from Air Conditioner, Fire Department Contacted – 6/10
- CMP Machine Shop Injury (Laceration) – 7/10
- ATF Fire Corrective Actions Completed – 9/10

Financial Investments & Stakeholder Concerns

- Funded through Department Operating Budget
 - ~2 FTE for entire ESSH program
 - ECR – shared with CAD
 - SHSD Rep. – shared with other Departments (20%)
- No External Stakeholder Concerns Communicated or Identified
- Staff Involved with Teacher and Student Mentoring Programs

Physics Performance FY2010

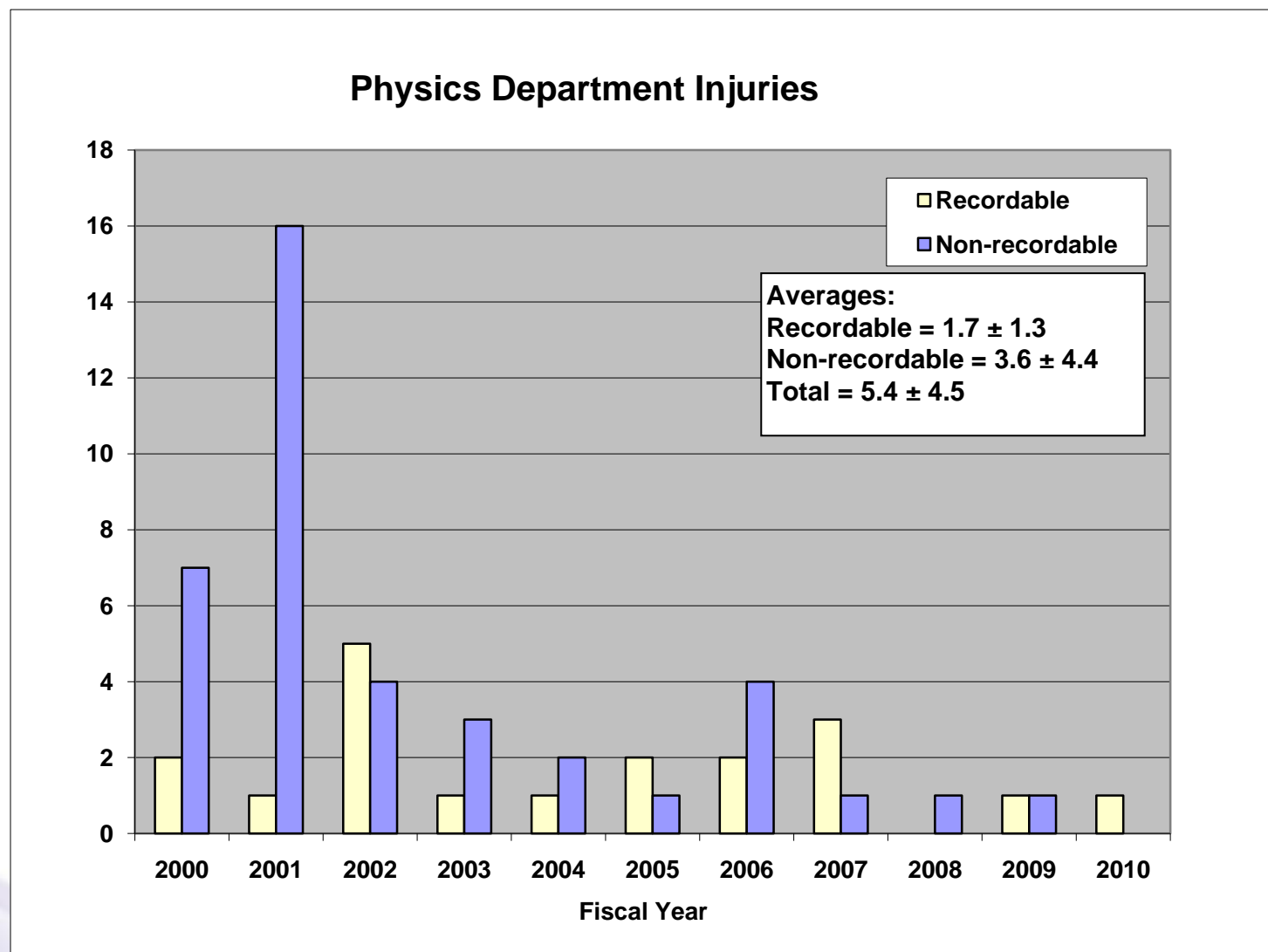
■ EMS and OHSAS Targets

- Reduce excess chemicals and materials stored in the Department
 - Evaluate storage and usage of chemicals in 2 labs or work areas
 - Dispose of unneeded chemicals or materials in 2 labs or storage areas
 - Various rooms disposed of numerous chemicals, oils, and grease
 - Removed lead glass from a basement cage, sent to HWM for disposal
- Reduce energy and paper consumption
 - Require all ESRs to be submitted using the on-line form
 - Transfer all existing ESRs to the lab-wide electronic system
- Send email messages to all Department members when conditions warrant, at least twice during the year.
 - 12/09 - sent email "Winter Slips and Falls"
 - 5/10 - forwarded email "Grill Safety"

Physics Performance FY2010

- Conduct inspections of satellite accumulation areas in addition to Tier 1 inspections. Perform on approximately a monthly basis, at least 9 times a year. (Did 6 Inspections).
- Other Activities or Issues
 - F&O removed many mercury-containing devices from service
 - Tested 2 old shops for heavy metal contamination
 - Arranged HPI training for Department personnel
 - Conducted Evacuation Drill for Building 510
 - Tested Rooms for Mold and other environment quality issues
 - Interface with RSL2 Initiative – ESH, energy conservation
 - Electronic ESR Working Group

Injury Statistics



Proposed FY 2011 Targets

- Improve safety awareness in laboratory areas.
 - Post new area-based PPE requirements on all laboratory rooms.
 - Post new hazard placards on all laboratory rooms.
 - Inventory all pressure vessels and pressure relief valves.
 - Submit repair order for the crumbling sidewalk near 510.
 - Conduct at least two ergonomic evaluations.
- Provide effective waste and material management.
 - Identify and dispose of priority excess materials and wastes from two laboratories.
 - Conduct four inspections of satellite accumulation areas in addition to Tier 1 inspections.
- Promote energy efficiency.
 - Identify and implement one energy reduction or conservation idea.
 - Identify hoods that can be turned off except when in use

Management Feedback

- Are the Systems Effective and Adequate in terms of:
 - Policy commitments?
 - Achieving objectives & performance measures?
 - Identifying SEA, impacts & Risks?
 - Resource allocation, information systems & organizational issues?
- Are Objectives & Targets Suitable in terms of:
 - Environmental impacts & injury/illnesses?
 - Meeting regulatory requirements?
 - Should additional objectives/targets be established?
- Recommendations for Improvements?